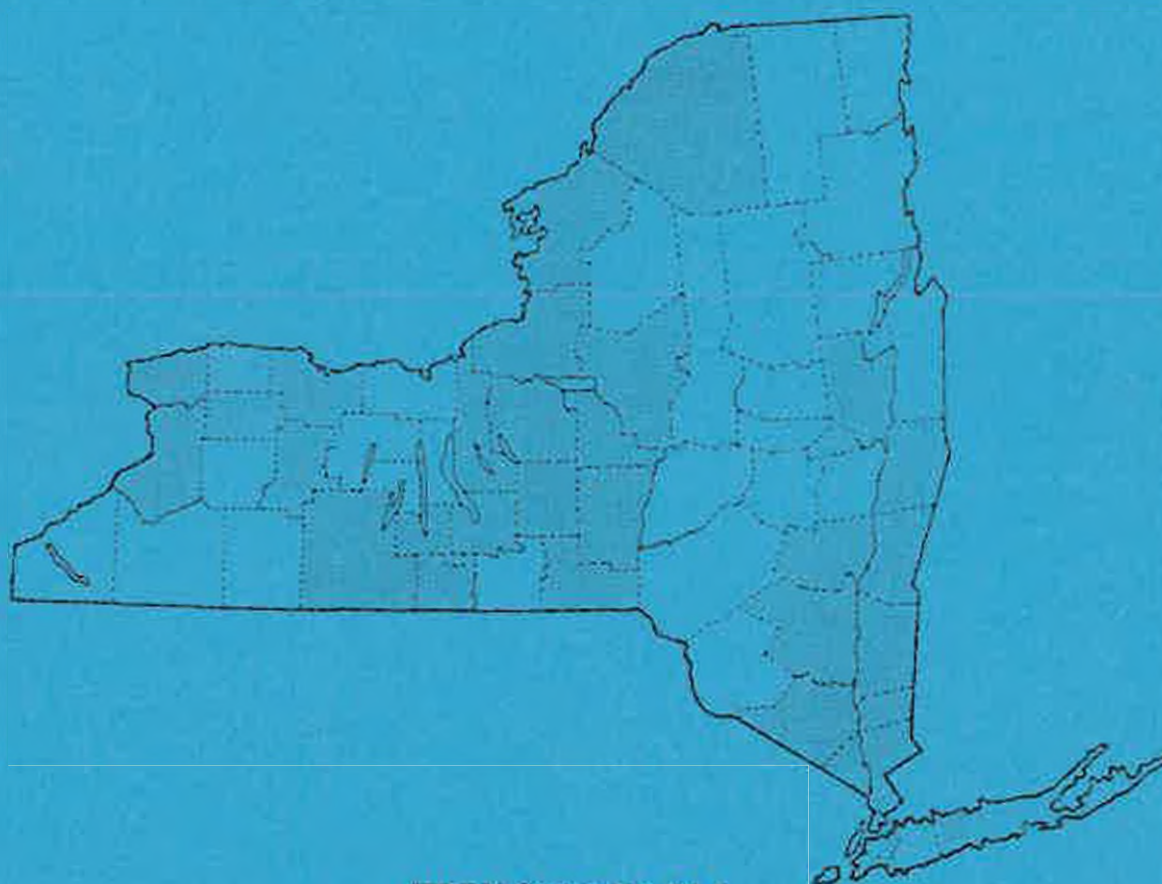


**UTILITY AND EFFECTIVENESS OF  
ENVIRONMENTAL MANAGEMENT COUNCILS  
& CONSERVATION ADVISORY COUNCILS  
IN LOCAL GOVERNMENT**

by

**Larry M. Gigliotti, Roland E. Shanks,  
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FINAL REPORT

STATE: NEW YORK  
PROJECT: W-146-R:17

PROJECT TITLE: Public Attitudes Toward Wildlife and Its Accessibility

STUDY NUMBER AND TITLE: III - Design Specification for Wildlife Management Actions

JOB NUMBER AND TITLE: III-4 - Non-formal Education and Policy Formulation

JOB OBJECTIVES: (1) To assess the potential to improve public land-use policy affecting wildlife at the local level through the non-formal education sector, particularly through policy education programs of Cornell Cooperative Extension.

(2) To improve the capacity of communities and their local government officials to understand and act upon sound principles of wildlife ecology, through the local public policy formulation process.

JOB DURATION: 1 July 1989 - 31 March 1992

See Attached Reports: (1) Opportunities for Meeting Wildlife Management Objectives Through Local Government: An Assessment of Communication Program Potential, and (2) Utility and Effectiveness of Environmental Management Councils & Conservation Advisory Councils in Local Government

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## **EXECUTIVE SUMMARY**

Many of the decisions affecting wildlife occur at the local government level where land-use policy is set. Therefore, wildlife managers benefit from effective communication with decision makers to accomplish their goals and objectives. This study was part of a larger project designed to assess attitudinal similarities and differences related to communication between the New York State Department of Environmental Conservation—Bureau of Wildlife (BOW) and local government (county and town). Environmental Management Councils (EMCs) and Conservation Advisory Councils (CACs) were proposed as potential communication channels through which BOW could reach local government officials (Gigliotti et al. 1992). The role of these councils in local government is to provide a forum within government whereby citizens, environmental leaders, legislators and department and agency heads can work together to resolve environmental issues. This report focuses on indicators of the utility and effectiveness of EMCs/CACs in meeting this general purpose.

Information was collected from self-administered, mail-back questionnaires sent to New York county legislators (CLs), county Environmental Management Council (EMC) members, Conservation Advisory Council (CAC) chairpersons, and town planning board (TPB) chairpersons. All surveys used a multiple-mailing technique and were conducted during the spring of 1991. A nonrespondent follow-up was conducted to examine nonresponse bias.

### **Indicators of the Utility and Effectiveness of EMCs/CACs**

- EMCs and CACs received favorable ratings from local government officials across several dimensions. Councils were characterized as being unbiased, focusing on important issues, providing the right amount of input, being believable, being easy to understand, being representative of local constituents and considering economic, legal and political ramifications of issues.

- EMCs/CACs were listed by local government officials as very credible sources of information concerning wildlife-related issues.
- County/town officials frequently listed EMCs/CACs as likely to contact them to provide information about wildlife-related issues and many county/town officials reported they would likely contact EMCs/CACs for wildlife-related information.
- Most county legislators reported that they "sometimes" (44%) or "often" (31%) use input from their county's EMC. Town planning board chairpersons reported greater use of input from their CAC compared to county legislators' use of their EMC, with 27% reporting "often" and 47% reporting "very often."

#### **Potential Attitudinal Impediments to Communication Between EMCs/CACs and Local Government Officials**

- EMC members were significantly more biocentric than county legislators in their world view. CAC chairpersons were only slightly more biocentric than town planning board chairpersons.
- Overall, EMC members assigned higher environmental importance to county activities than county legislators. CAC chairpersons and town planning board chairpersons were similar in their ratings of the environmental importance of town activities.

#### **State Funding**

- Overall, state funding was more important to EMCs than CACs. Almost three-fourths of the EMC members reported that state funding of EMCs was either a critical issue (34%) or a very important issue (40%) for their EMC. About one-third of the members reported that their EMC would not survive if all state funding ended, while only 5% of the CAC chairpersons reported that their CAC would not survive without state funding.

#### **Implications for BOW Programs**

This study indicates that EMCs and CACs are potentially good avenues for BOW to establish communication links with county and town governments in New York State. EMCs/CACs are viewed as a credible source of environmental information by local government officials. BOW is also viewed as a credible



source of information; however, the local status of EMCs/CACs may be an added attraction to local officials. The credibility and appeal of environmental information or recommendations for local decision makers could be increased by joint efforts of BOW and EMCs/CACs.

## **ACKNOWLEDGMENTS**

We appreciate the cooperation of Environmental Management Council members, Conservation Advisory Council chairpersons, New York State county legislators/supervisors and town planning board chairpersons in this study. We are particularly grateful to the New York State Department of Environmental Conservation staff who provided assistance with this project: Mike Cavanaugh (Bureau of Community Affairs), Randy Stumvoll, George Mattfeld, Mike Matthews and Gary Parsons (Bureau of Wildlife). We thank Tommy Brown for his review of this report; staff of the Human Dimensions Research Unit for assistance in conducting the study; and Margie Peech for word-processing support. Funding for this study was provided by New York State through Federal Aid in Wildlife Restoration Project W-146-R.



## TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES . . . . .	vi
INTRODUCTION . . . . .	1
ENVIRONMENTAL MANAGEMENT COUNCILS (EMCs) AND CONSERVATION ADVISORY COUNCILS (CACs) . . . . .	2
ENVIRONMENTAL PARADIGMS . . . . .	3
METHODS . . . . .	5
RESULTS AND DISCUSSION . . . . .	6
Utility and Effectiveness of EMCs/CACs . . . . .	6
Potential Attitudinal Impediments to Communication Between EMCs/CACs and Local Government Officials . . . . .	8
State Funding . . . . .	14
IMPLICATIONS FOR BOW PROGRAMS . . . . .	14
SUGGESTIONS FOR THE BUREAU OF COMMUNITY AFFAIRS . . . . .	18
SUMMARY . . . . .	18
LITERATURE CITED . . . . .	19
APPENDIX TABLES . . . . .	22

## LIST OF TABLES

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Degree of credibility that county legislators/supervisors attribute to sources concerning information about wildlife-related issues . . . . .	9
2	Degree of credibility that town planning board chairpersons attribute to sources concerning information about wildlife-related issues . . . . .	10
3	New Environmental Paradigm (NEP) item analysis, comparing Environmental Management Council (EMC) members and New York State county legislators (CL) . . . . .	11
4	Environmental importance of county activities analysis, comparing Environmental Management Council (EMC) members and New York State county legislators (CL) . . . . .	12
5	New Environmental Paradigm (NEP) item analysis, comparing Conservation Advisory Council (CAC) chairpersons and town planning board (TPB) chairpersons . . . . .	15
6	Environmental importance of town activities analysis, comparing Conservation Advisory Council (CAC) chairpersons and town planning board (TPB) chairpersons . . . . .	16
7	Importance of state reimbursement money to EMCs/CACs . . . . .	17



# UTILITY AND EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT COUNCILS & CONSERVATION ADVISORY COUNCILS IN LOCAL GOVERNMENT

## Introduction

Many of the decisions affecting wildlife occur at the local government level where land-use policy is set. Wildlife managers who communicate effectively with local decision makers can accomplish management goals and objectives in concert with local government. This study was part of a larger project designed to assess attitudinal similarities and differences related to communication between the New York State Department of Environmental Conservation—Bureau of Wildlife (BOW) and local government (county and town). Environmental Management Councils (EMCs) and Conservation Advisory Councils (CACs) were proposed as potential communication channels through which BOW could reach local government officials in New York State (Gigliotti et al. 1992). Councils' role in local government is to provide a forum within government whereby citizens, environmental leaders, legislators and department and agency heads can work together to resolve environmental issues.

As BOW considers the potential of EMCs/CACs as a communication link with local government officials, an assessment of the utility and effectiveness of EMCs/CACs in local government decision making becomes important. This report summarizes findings regarding the utility and effectiveness of EMCs/CACs in local government. These data will help inform BOW's (and other agencies') decisions about EMCs'/CACs' appropriateness as a communication link with county/town government, and can help EMCs/CACs identify ways to increase their own effectiveness.

## Environmental Management Councils (EMCs) and Conservation Advisory Councils (CACs)

EMCs and CACs were established in 1970 as formally constituted citizen advisory groups to county and town governments, respectively (Schenck 1978). EMCs were established to provide effective coordination of environmental matters among all departments and agencies and for the purpose of facilitating local participation in planning activities that influence the environmental quality of the locality and therefore the state (Article 47 of the New York State Environmental Conservation Law and Article 12-F of New York State General Municipal Law). EMCs and their municipal-level counterparts, CACs, are responsible for reviewing and advising local and state governments on present and proposed methods of using, protecting and conserving the environment for the benefit of people. EMCs/CACs are formal mechanisms for citizen input on the locality's land-use development and allocation decisions.

EMCs/CACs seem to be an ideal communication channel for the New York State Department of Environmental Conservation-Bureau of Wildlife to reach both local government officials and the general public. An EMC/CAC is a stable, on-going advisory board with a long-range public interest focus rather than being ad hoc or single-issue oriented, as many local environmental groups tend to be (Schenck 1978). EMCs/CACs are the legitimized mechanism for environmental input within local government. In addition, EMCs/CACs are linked to the Department of Environmental Conservation (DEC) through the Bureau of Community Affairs in the Office of Public Affairs, which serves as administrator of DEC's responsibilities for technical, informational, and partial financial support.

With the exception of Schenck's (1978) descriptive analysis of EMCs, no comprehensive evaluation had been made of EMCs/CACs prior to this study.



Schenck (1978: 13) posed two central questions, but did not answer them: (1) "Do EMCs actually serve as a vehicle for conveying to county government the environmental concerns of the community?" and (2) "Do EMCs influence environmental decision-making, and how?" These questions guided the development of EMC/CAC effectiveness measures in this study. Schenck (1978) cited the following as possible indicators of effectiveness: (1) having a clear understanding of the Council's role in the county, (2) having a clear understanding of the general and specific responsibilities of Council membership, (3) having an understanding of how the local government works, (4) having a good working relationship and two-way communication with local elected officials, (5) having Council input used by decision-makers, and most importantly (6) having credibility with and being valued by local decision-makers. These indicators of effectiveness of EMCs/CACs were included in the study.

### Environmental Paradigms

The environmental paradigm concept and measure used in this study was designed to identify an individual's position on a continuum between an anthropocentric paradigm and a biocentric paradigm (Catton and Dunlap 1978, Dunlap and Van Liere 1978, 1984, Van Liere and Dunlap 1981, Catton 1982, Edge11 and Nowell 1989). These paradigms represent different world views about the relationship of humans to nature (see Shanks 1992 for a more complete discussion of environmental paradigm theory). The following description of the anthropocentric and biocentric paradigms are from Shanks (1992: 21-23):

The anthropocentric paradigm separates humans from nature and places them at the center of the natural world. People who

ascribe to this position believe that nature exists primarily to fulfill human needs, and that humans should assign values to the natural elements and manage the natural system to ensure maximum benefit to humans. Often economics is seen as the way to determine and maximize benefits. Nature is perceived as resilient to changes caused by humans. Science and technology are viewed as being able to solve any problem and provide for future needs. The natural resource management disciplines in their current configuration rely heavily on this position and exemplify the anthropocentric paradigm (Cotgrove 1979, Culhane 1981, Sessions and Duvall 1985, Drengson 1989, Fox 1990, Zimmerman 1990, Plumwood 1991).

The biocentric paradigm regards humans as equal to all other elements within the Earth's biotic community or biosphere. All elements of the biosphere are therefore entitled to equal consideration when evaluating the consequences of proposed actions. Survival of the biosphere is seen as paramount; the health of the biosphere is considered superior to human benefits. People who espouse the biocentric paradigm consider philosophy, myth, religion, and art as being useful sources of information about the natural world (Fox 1990, Snyder 1990). Because of the view that humans are part of and of equal value to any other element of the biosphere, this environmental paradigm assigns intrinsic values to elements of the natural world (Taylor 1986). The goodness of an action is therefore based on how well the intrinsic values of an object are maintained. The human use of resources is seen as secondary to the maintenance of the entire biosphere. Nature is viewed as fragile and to be protected. Science and technology are seen as helpful only insofar as they serve the greater good. Modifying personal values and desires plays an equally important role in solving problems and defining future actions. The biocentric paradigm is prevalent in the contemporary environmental movement (Cotgrove 1979, Culhane 1981, Sessions and Duvall 1985, Drengson 1989, Fox 1990, Zimmerman 1990, Plumwood 1991).

According to Shanks' (1992) hypothesis, the less similar two groups perceive themselves to be in world views, the more difficult it will be for them to communicate with each other. Differences in environmental world views between local governments (county and town) and their environmental advisory groups (EMCs/CACs) were measured in this study. This information can be used by local governments and their environmental advisory groups to attain accurate perceptions of each other's environmental world views. Of course,

many other variables also contribute to effective environmental communication between groups.

## Methods

For this study, we used a theoretical framework that combined environmental paradigm theory and a communication model to construct a mail survey. Respondents answered environmental attitude questions about themselves and the attitudes they perceived Bureau of Wildlife staff held. Information sources and credibility ratings of information sources were used to identify potential communication channels/networks.

A 12-page, self-administered, mail-back questionnaire was sent to 705 New York State county legislators/supervisors, approximately two-thirds of all county legislators/supervisors in the state. A 12-page, self-administered, mail-back questionnaire was sent to all 520 EMC members, all 119 CAC chairpersons, and all 117 town planning board (TPB) chairpersons from towns with Conservation Advisory Councils (cities and villages were not included). All surveys used a multiple-mailing technique, as recommended by Dillman (1978) and Brown et al. (1989), and were conducted during the spring of 1991. A nonrespondent follow-up was conducted to examine nonresponse bias. Following comparisons of data from respondents and nonrespondents to the mail survey, nonresponse bias was not considered a significant problem for data interpretation (Gigliotti et al. 1992).

## Results and Discussion

**Utility and Effectiveness of EMCs/CACs.** In this study, we used several indicators of effectiveness of EMCs/CACs but did not measure effectiveness directly. These indicators included having a good working relationship with their local government officials, being viewed as credible, and having input used in decision making. These indicators are often important factors contributing to effectiveness but they do not guarantee being effective in solving local environmental issues.

EMCs/CACs rated their performance highly for: (1) representing the range of relevant interests in the county/town, (2) collecting information on public opinions, and (3) providing information to public officials (Appendix Table 1). Most EMC members and CAC chairpersons reported they had a clear understanding of their organization's role in their county/town and how their respective government works (Appendix Table 2). However, over three-fourths of the EMC members and two-thirds of CAC chairpersons (CAC membership was not surveyed) wanted to learn more about how to work within the local government system. This suggests that EMC effectiveness (and probably that of CACs also) could be improved by providing training regarding the workings of local government, EMC's role in county government, and EMC members' general and specific responsibilities. In this study, local officials prioritized EMC/CAC functions (Appendix Table 3) and rated their EMC/CAC on each function (Appendix Table 4). Providing data on environmental issues received the highest priority by local officials. EMCs/CACs could use such information to determine whether their own priorities match those of their local officials.

County and town officials rated their EMC/CAC relatively high on its ability to work with local government. (Most county legislators reported that



their EMC had an "excellent" (21%) or "good" (51%) ability to work with their county government, with 20% reporting "fair", 5% "poor", and 3% "no opinion." Most TPB chairpersons reported that their CAC had an "excellent" (35%) or "good" (26%) ability to work with their local government, with 22% reporting fair, 16% "poor", and 1% "no opinion.")

Although most EMC members (58%) and CAC chairpersons (79%) reported they had a good working relationship, a notable percent (27%/13%) reported they did not. Also 40% of EMC members and 30% of CAC chairpersons reported they did not have good two-way lines of communication with their local officials. The comments on returned questionnaires by many EMC members indicated they did not feel appreciated by their county officials and that their input was not used or valued. Also, many EMC members believed that their county legislators did not adequately consider the environmental aspects of issues (Appendix Table 5). Nevertheless, this study identified highly favorable ratings by county and town government officials for EMCs/CACs on a number of attributes, such as being valuable to local government, utilizing their input, being credible, being unbiased and providing appropriate input (Appendix Table 6).

County legislators reported frequent use of input by their EMC and believed their EMC was valuable to their county (Appendix Tables 7 - 11). CACs received an even higher rate of use of input and importance rating by town government (Appendix Tables 7, 8, 9, 12 and 13). Several explanations are possible for the discrepancy between governments' high rating of their EMCs/CACs and EMCs'/CACs' lower perception of their importance to government. One clue comes from the perception of poor two-way communication, which, if true, suggests that EMCs/CACs do not receive enough feedback about use of their input to know if and how their input helped shape a decision.

Because environmental issues will be only a small part of the overall concern of local government officials, other government activities and agencies become a consideration as they compete for legislative time and budget allocations (Anderson 1987). Improving two-way communication between EMCs/CACs and local government officials would give EMCs/CACs better understanding of the local political process and insight about how to demonstrate the broad range of benefits possible from environmental programs. Improved two-way communication would provide feedback to EMCs/CACs on the value of their input to most local officials.

Perhaps the best indicator of actual and potential effectiveness was the high credibility rating that EMCs/CACs received from their respective local governments (Tables 1 and 2). This suggests that where they exist, EMCs/CACs can be effective communication links between the Bureau of Wildlife (BOW) and local governments (Appendix Tables 14 and 15). EMCs/CACs consider wildlife issues along with other environmental issues. Furthermore, EMCs/CACs are interested in information from and working with BOW (Gigliotti et al. 1992).

**Potential Attitudinal Impediments to Communication Between EMCs/CACs and Local Government Officials.** Based on the New Environmental Paradigm scale, EMC members were significantly more biocentric than county legislators (CLs) in their world view (Table 3). Overall, EMC members assigned higher ratings of environmental importance to county activities than did CLs (Table 4). These differences represent a potential impediment to communication. For example, a high percentage of EMC members reported that their local government does not adequately consider the environmental aspects of issues. Nevertheless, county legislators reported high use of EMC input, high

Table 1. Degree of credibility that county legislators/supervisors attribute to sources concerning information about wildlife-related issues.

POSSIBLE INFORMATION SOURCES ABOUT WILDLIFE-RELATED ISSUES	DEGREE OF CREDIBILITY <sup>a,b</sup>	95% C.I.
1. Your County Cooperative Extension agent.....	2.43 +	2.32-2.54
2. Your Environmental Management Council (EMC).....	2.26	2.11-2.41
3. County and regional planning groups.....	2.20 +	2.06-2.35
4. Bureau of Wildlife staff.....	2.17 -	2.03-2.31
5. Your Fish & Wildlife Management Boards.....	2.12	1.96-2.28
6. U.S. Fish & Wildlife Service.....	2.09	1.90-2.27
7. A wildlife specialist at a college or university..	2.08 -	1.90-2.26
8. Other county legislators or supervisors.....	2.06 +	1.93-2.18
9. Local Conservation Advisory Councils (CAC).....	2.00	1.84-2.16
10. State wildlife biologist.....	1.96 -	1.74-2.17
11. Other federal agencies.....	1.94	1.75-2.14
12. Local environmental organizations.....	1.88	1.73-2.02
13. Friends and family.....	1.78	1.61-1.96
14. Local sporting organizations.....	1.76 +	1.61-1.92
15. Local chapters of national envir. organizations...	1.63	1.44-1.83
16. Local business and industrial groups.....	1.57 +	1.38-1.75
17. An economist at a college or university.....	1.46	1.23-1.70
18. League of Women Voters.....	1.36	1.15-1.57

<sup>a</sup>Degree of credibility was measured by a 4-point scale with 0=NO CREDIBILITY and 3=GREAT CREDIBILITY.

<sup>b</sup>Based on 125 county legislators/supervisors who reported having a functioning EMC.

+ = CL rated the source higher than did EMCs (Compare with Appendix Table 13).

- = CL rated the source lower than did EMCs (Compare with Appendix Table 13).

Table 2. Degree of credibility that town planning board chairpersons attribute to sources concerning information about wildlife-related issues.

POSSIBLE INFORMATION SOURCES ABOUT WILDLIFE-RELATED ISSUES	DEGREE OF CREDIBILITY <sup>a</sup>	95% C.I.
1. Bureau of Wildlife staff.....	2.50	2.30-2.70
2. State wildlife biologist.....	2.35	2.09-2.61
3. Local Conservation Advisory Councils (CAC).....	2.28	2.06-2.50
4. Your County Cooperative Extension agent.....	2.16	1.94-2.37
5. U.S. Fish & Wildlife Service.....	2.13	1.88-2.38
6. Your Environmental Management Council (EMC).....	2.10	1.81-2.38
7. County and regional planning groups.....	2.06	1.80-2.32
8. A wildlife specialist at a college or university..	2.04	1.83-2.25
9. Local environmental organizations.....	1.98	1.76-2.20
10. Other federal agencies.....	1.98	1.70-2.26
11. Fish & Wildlife Management Boards.....	1.76	1.38-2.13
12. Local chapters of national organizations.....	1.74	1.50-1.98
13. Local sporting organizations.....	1.42	1.18-1.67
14. Friends and family.....	1.26	0.95-1.57
15. Local business and industrial groups.....	1.16	0.94-1.37
16. County legislators or supervisors.....	1.15	0.88-1.41
17. An economist at a college or university.....	1.12	0.83-1.40
18. League of Women Voters.....	1.06	0.77-1.35

<sup>a</sup>Degree of credibility was measured by a 4-point scale with 0=NO CREDIBILITY and 3=GREAT CREDIBILITY.

NOTE: No significant differences between TPBs and CACs (Compare with Appendix Table 14), however, small sample sizes make it difficult to find significant differences.



Table 3. New Environmental Paradigm (NEP) item analysis, comparing Environmental Management Council (EMC) members and New York State county legislators (CL).

NEP ITEMS	EMC MEAN <sup>a</sup>	CL MEAN <sup>a</sup>	F-VALUE	SIGN.
COMPLETE NEP SCALE.....	3.4	3.0	67.91	<.001
FACTOR 1: LIMITS TO GROWTH.....	3.3	2.8	62.78	<.001
There are limits to growth beyond which our industrialized society cannot expand.....	3.3	2.8	38.59	<.001
The Earth is like a spaceship with only limited room and resources.....	3.6	3.0	62.23	<.001
We are approaching the limit to the number of people that the Earth can support.....	3.1	2.5	38.86	<.001
To maintain a healthy economy we will have to develop a "steady state" economy where industrial growth is controlled.....	3.1	2.7	19.20	<.001
FACTOR 2: BALANCE OF NATURE.....	3.5	3.3	28.66	<.001
When humans interfere with nature it often produces disastrous consequences.....	3.4	3.0	17.45	<.015
The balance of nature is very delicate and easily upset.....	3.4	3.2	5.68	.018
Humans must live in harmony with nature in order to survive.....	3.8	3.6	6.83	.009
Humans are severely abusing the environment.....	3.5	3.1	21.56	<.001
Humans need not adapt to the environment because they can remake it to suit their needs <sup>b</sup>	3.6	3.4	11.60	.001
FACTOR 3: HUMANS OVER NATURE.....	3.2	2.8	37.15	<.001
Humans were created to rule over the rest of nature <sup>b</sup> .....	3.5	2.8	57.72	<.001
Plants and animals exist primarily to be used by humans <sup>b</sup> .....	3.4	2.9	29.09	<.001
Humans have the right to modify the natural environment to suit their needs <sup>b</sup> .....	2.9	2.8	1.33	.250

<sup>a</sup>A 4-point scale was used with 1=STRONGLY DISAGREE, 2=MILDLY DISAGREE, 3=MILDLY AGREE, and 4=STRONGLY AGREE.

<sup>b</sup>Reverse coded for analysis.

Table 4. Environmental importance of county activities analysis, comparing Environmental Management Council (EMC) members and New York State county legislators (CL).

COUNTY ACTIVITIES	EMC MEAN <sup>a</sup>	CL MEAN <sup>a</sup>	F-VALUE	SIGN.
<b>FACTOR 1: PEOPLE ACTIVITIES</b> .....	1.8	1.9	2.04	.154
Providing substance abuse programs.....	1.2	1.6	11.93	.001
Maintaining a county jail.....	1.7	2.1	10.50	.001
Providing for law enforcement.....	1.9	2.0	0.16	.692
Prosecuting criminal actions.....	1.8	2.0	1.76	.185
Providing food stamps.....	1.0	1.2	3.52	.061
Maintaining existing roads.....	2.7	2.8	1.61	.205
Overseeing disaster relief.....	1.9	2.0	0.27	.601
Initiating a weather program.....	2.0	1.8	6.79	.010
Operating a public hospital facility.....	1.9	2.0	1.29	.257
<b>FACTOR 2: ENVIRONMENTAL ACTIVITIES</b> .....	2.8	2.4	48.68	<.001
Issuing wetland permits.....	3.5	2.6	92.42	<.001
Planning new roads.....	3.1	2.8	10.21	.002
Setting park policies and regulations.....	2.8	2.6	7.06	.008
Acquiring open space.....	3.1	2.3	80.77	<.001
Establishing a public transit system.....	2.6	2.0	35.77	<.001
Establishing Agricultural Districts.....	2.9	2.6	11.98	.001
Instituting rabies control programs.....	2.1	2.1	0.02	.877
Establishing an industrial development authority/agency.....	2.5	2.3	3.49	.062
<b>FACTOR 3: MIXED ACTIVITIES</b> .....	3.5	3.3	14.12	<.001
Establishing recycling programs.....	3.5	3.4	4.41	.036
Issuing septic system permits.....	3.2	2.9	10.84	.001
Siting land fills.....	3.8	3.6	6.23	.013

<sup>a</sup>A 5-point scale was used with 0=NONE, 1=SLIGHT, 2=MODERATE, 3=HIGH, and 4=VERY HIGH importance of environmental considerations in county activities.

credibility of their EMC, and rated EMCs as valuable to the county. Apparently the differences in environmental attitudes are not so great as to block county legislators' use of EMC information (although perceived adequacy of use may differ between EMCs and CLs). As suggested by Gigliotti et al. (1992), the difference in world views may be acceptable because of the environmental advocacy role of EMCs. In other words, CLs may feel that it is appropriate for EMCs to have a more biocentric world view than themselves. Another likely reason for EMC's/CAC's favorable ratings by local government officials is that EMCs/CACs are local advisory groups. Bissell et al. (1987) pointed out that even radical programs of land-use control often will succeed if they are viewed and administered as local programs.

One effect of the difference in world view between EMC members and county legislators may be suggested by CLs' higher priority rating for EMCs to provide data rather than recommendations on environmental issues. Apparently CLs trust the information that EMCs provide, but are not confident that EMCs will arrive at the conclusions favored by CLs. This may cause frustration for EMC members when they provide information but do not see it used in the way they expected. Some EMC members may feel that their input was not used when in fact CLs did use the input and found it valuable, although their conclusions were different from what EMC members would have drawn. Not much has changed in the past 14 years in this respect; Schenck (1978) noted that some EMC members felt frustrated by their Council's seeming inability to bring about the actions they recommended. Apparently what is needed is more two-way communication between EMCs and CLs, particularly after input is provided by EMCs, to clarify the reasons county legislators made specific decisions.

CAC chairpersons were only slightly more biocentric than TPB chairpersons (Table 5) and were similar in their ratings of the environmental importance of town activities (Table 6), in contrast to larger differences between EMCs and county legislators. This could be a reason that CACs reported a better working relationship with their local government compared to EMCs. Similarity in environmental paradigms fits our hypothesis that communication will be easier.

**State Funding.** Schenck (1978) recommended that "up to 50% reimbursement of the EMC budget should be continued." State funding, however, has fallen to far below the 50% level (about 16% in fiscal year 1991-92). The impact of reduced funding was not determined in this study, but the same number (n=31) of EMCs exists today as when Schenck conducted her study of EMCs in 1977. Most (n=26) of the counties which had an EMC in 1977 still had an EMC in 1991 (Gigliotti et al. 1992). Continued state funding is an important issue for most EMC members (Table 7). About one-third felt that their EMC would not survive if all remaining State funding ended. Future research could identify the level of effectiveness and productivity that could be accomplished with increased funding for EMCs, rather than the minimum support levels of recent years.

#### **Implications for BOW Programs**

Our results indicate that EMCs and CACs are potentially effective channels through which BOW might establish communication links with county and town governments in New York State. EMCs/CACs are viewed as credible sources of environmental information by local government officials. BOW is also



Table 5. New Environmental Paradigm (NEP) item analysis, comparing Conservation Advisory Council (CAC) chairpersons and town planning board (TPB) chairpersons.

NEP ITEMS	CAC MEAN <sup>a</sup>	TPB MEAN <sup>a</sup>	F-VALUE	SIGN.
COMPLETE NEP SCALE.....	3.4	3.2	6.88	.010
FACTOR 1: LIMITS TO GROWTH.....	3.3	2.8	10.63	.002
There are limits to growth beyond which our industrialized society cannot expand.....	3.4	2.9	7.55	.007
The Earth is like a spaceship with only limited room and resources.....	3.4	3.2	2.77	.099
We are approaching the limit to the number of people that the Earth can support.....	3.1	2.5	8.64	.004
To maintain a healthy economy we will have to develop a "steady state" economy where industrial growth is controlled.....	3.1	2.7	5.46	.022
FACTOR 2: BALANCE OF NATURE.....	3.5	3.4	1.29	.260
When humans interfere with nature it often produces disastrous consequences.....	3.3	3.1	1.31	.255
The balance of nature is very delicate and easily upset.....	3.5	3.4	0.57	.451
Humans must live in harmony with nature in order to survive.....	3.8	3.7	0.14	.712
Humans are severely abusing the environment.....	3.5	3.4	1.23	.270
Humans need not adapt to the environment because they can remake it to suit their needs <sup>b</sup>	3.6	3.6	0.02	.898
FACTOR 3: HUMANS OVER NATURE.....	3.2	3.1	1.05	.308
Humans were created to rule over the rest of nature <sup>b</sup> .....	3.4	3.1	2.38	.126
Plants and animals exist primarily to be used by humans <sup>b</sup> .....	3.2	3.2	0.00	.993
Humans have the right to modify the natural environment to suit their needs <sup>b</sup> .....	3.1	3.0	0.35	.556

<sup>a</sup>A 4-point scale was used with 1=STRONGLY DISAGREE, 2=MILDLY DISAGREE, 3=MILDLY AGREE, and 4=STRONGLY AGREE.

<sup>b</sup>Reverse coded for analysis.

Table 6. Environmental importance of town activities analysis, comparing Conservation Advisory Council (CAC) chairpersons and town planning board (TPB) chairpersons.

TOWN ACTIVITIES	CAC MEAN <sup>a</sup>	TPB MEAN <sup>a</sup>	F-VALUE	SIGN.
Enforce wetland regulations.....	3.8	3.7	2.49	.117
Enforce state environmental quality review.....	3.8	3.7	2.42	.123
Regulate construction in floodplains.....	3.8	3.6	3.50	.064
Enforce site plan review regulations.....	3.7	3.5	3.55	.062
Provide a solid waste landfill.....	3.6	3.7	0.57	.450
Enforce zoning regulations.....	3.5	3.3	0.81	.369
Plow, sand and salt town roads.....	3.2	3.3	0.21	.645
Provide playgrounds.....	2.3	2.4	0.35	.553
Administer uniform fire regulations and building codes.....	2.3	2.3	0.10	.756
Provide youth recreation programs.....	2.2	2.2	0.01	.941
Provide recreation and education for the aging..	1.9	1.9	0.04	.851
Maintain a town library.....	1.9	1.8	0.49	.484
Support a town historian.....	1.7	1.3	2.17	.143
Operate an animal shelter.....	1.6	1.8	0.70	.404
Enforce state dog laws.....	1.6	1.4	0.81	.370
Provide constable or police stations.....	1.5	1.6	0.01	.950
Provide ambulance service.....	1.1	1.8	6.96	.010

<sup>a</sup>A 5-point scale was used with 0=NONE, 1=SLIGHT, 2=MODERATE, 3=HIGH, and 4=VERY HIGH importance of environmental considerations in town activities.

Table 7. Importance of state reimbursement money to EMCs/CACs.

QUESTION: <i>How important an issue is state funding to your EMC/CAC?</i>				
RESPONSE	EMC MEMBERS <sup>a</sup>		CAC CHAIRPERSONS <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
CRUCIAL.....	100	33.9	5	8.9
VERY IMPORTANT.....	119	40.3	12	21.4
MODERATELY IMPORTANT.....	43	14.6	9	16.1
SLIGHTLY IMPORTANT.....	13	4.4	8	14.3
NOT IMPORTANT.....	8	2.7	19	33.9
NO OPINION.....	12	4.1	3	5.4
TOTAL	295	100.0	56	100.0

QUESTION: <i>Do you think your EMC/CAC would survive if all state funding ended?</i>				
RESPONSE	EMC MEMBERS <sup>b</sup>		CAC CHAIRPERSONS <sup>b</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
NO.....	98	33.6	3	5.3
YES.....	155	53.1	51	89.5
NO OPINION.....	39	13.4	3	5.3
TOTAL	292	100.0	57	100.0

<sup>a</sup> $\chi^2=81.88$ ;  $df=5$ ;  $p<.001$

<sup>b</sup> $\chi^2=26.49$ ;  $df=2$ ;  $p<.001$

viewed as a credible source of information, but the local status of EMCs/CACs may be an added attraction for local governments. The credibility and appeal of wildlife-oriented environmental information or recommendations for local decision makers could be increased by joint efforts of BOW and EMCs/CACs.

### **Suggestions for the Bureau of Community Affairs**

Considering that most EMCs/CACs seem to be providing a valuable service to their local governments, it would seem that nearly all counties and towns would have a Council. Knowing why EMCs/CACs were established in particular counties and towns and how they continue to be successful would be useful for deciding whether an effort should be made to assist with the establishment of more EMCs/CACs. For example, a higher level of state funding may be necessary to establish an EMC/CAC, or an entirely different approach may be more successful. The positive information on EMCs/CACs identified in this study may be useful for stimulating interest in establishing new EMCs/CACs.

The Bureau of Community Affairs could use this information on EMCs'/CACs' utility and effectiveness to persuade other DEC Bureaus and other agencies to consider establishing a closer working relationship with EMCs/CACs as a way of providing better input into local land-use decisions. This would further improve the capabilities of EMCs/CACs to provide good information to their local governments.

### **Summary**

On almost every indicator of effectiveness, EMCs/CACs received favorable responses from local officials. County and town officials rated their EMC/CAC high on its ability to work with local government. County and town officials

reported frequent use of input from their EMC/CAC and reported that their EMC/CAC was valuable to their county/town. The best indicator of effectiveness was the high credibility rating that EMCs/CACs received from their respective local governments. The only indicator of effectiveness that did not receive high marks was the EMCs'/CACs' perception of poor two-way communication between their Council and local government officials. EMCs/CACs seem to need more feedback about the use of their input to know if and how it helped shape a decision.

EMCs were significantly more biocentric than county legislators in their world view. While this difference in world view represents a potential impediment to communication, it appears these potential impediments are not so great as to block county legislators' use of EMC information. This may be due to either the role that EMCs play (environmental advocate) or the fact that they are a local advisory group.

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Appendix Table 1. Self-rated performance by EMCs/CACs.

QUESTION: *The membership of our EMC/CAC is representative of the range of relevant interests in the county/town.*

RESPONSE	EMC MEMBERS <sup>a</sup>		CAC CHAIRPERSONS <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
STRONGLY DISAGREE.....	11	3.7	1	1.9
DISAGREE.....	38	12.9	9	16.7
UNDECIDED.....	37	12.5	2	3.7
AGREE.....	147	49.8	32	59.3
STRONGLY AGREE.....	<u>62</u>	<u>21.0</u>	<u>10</u>	<u>18.3</u>
TOTAL	295	100.0	54	100.0

QUESTION: *Our EMC/CAC does a good job of collecting information on what the people in our county/town want.*

RESPONSE	EMC MEMBERS <sup>b</sup>		CAC CHAIRPERSONS <sup>b</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
STRONGLY DISAGREE.....	13	4.4	0	0.0
DISAGREE.....	52	17.7	2	3.6
UNDECIDED.....	69	23.5	12	21.8
AGREE.....	131	44.7	33	60.0
STRONGLY AGREE.....	<u>28</u>	<u>9.6</u>	<u>8</u>	<u>14.5</u>
TOTAL	293	100.0	55	100.0

QUESTION: *Our EMC/CAC does a good job of providing information to the necessary public officials.*

RESPONSE	EMC MEMBERS <sup>c</sup>		CAC CHAIRPERSONS <sup>c</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
STRONGLY DISAGREE.....	8	2.7	0	0.0
DISAGREE.....	24	8.1	0	0.0
UNDECIDED.....	34	11.5	2	3.7
AGREE.....	159	53.7	33	61.1
STRONGLY AGREE.....	<u>71</u>	<u>24.0</u>	<u>19</u>	<u>35.2</u>
TOTAL	296	100.0	54	100.0

Appendix Table 1. Continued.

QUESTION: *Our CAC does a good job of providing information to the people in our town.<sup>a</sup>*

RESPONSE	CAC CHAIRPERSONS	
	NUMBER	PERCENT
STRONGLY DISAGREE.....	0	0.0
DISAGREE.....	9	16.7
UNDECIDED.....	14	25.9
AGREE.....	24	44.4
STRONGLY AGREE.....	7	13.0
TOTAL	54	100.0

<sup>a</sup> $\chi^2=5.07$ ;  $df=4$ ;  $p=.280$

<sup>b</sup> $\chi^2=11.85$ ;  $df=4$ ;  $p=.019$

<sup>c</sup> $\chi^2=11.21$ ;  $df=4$ ;  $p=.024$

<sup>d</sup>Question not asked of EMC members.

Appendix Table 2. EMCs'/CACs' understanding of their respective local government.

QUESTION: *Do you feel that have a clear understanding of your EMC's/CAC's role in your county/town?*

RESPONSE	EMC MEMBERS <sup>a</sup>		CAC CHAIRPERSONS <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
NO.....	66	22.7	6	10.9
YES.....	201	69.1	49	89.1
NO OPINION.....	24	8.2	0	0.0
TOTAL	291	100.0	55	100.0

QUESTION: *Do you feel that have a clear understanding of how your county/town government works?*

RESPONSE	EMC MEMBERS <sup>a</sup>		CAC CHAIRPERSONS <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
NO.....	71	23.8	3	5.5
YES.....	227	76.2	52	94.5
TOTAL	295	100.0	55	100.0

QUESTION: *Would you like to learn more about how to work with your county/town government system?*

RESPONSE	EMC MEMBERS <sup>a</sup>		CAC CHAIRPERSONS <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
NO.....	64	22.5	17	30.4
YES.....	221	77.5	39	69.6
TOTAL	285	100.0	56	100.0

<sup>a</sup>Comparison between EMCs and CACs not appropriate for these questions because the EMC survey was of all members and the CAC survey was of chairpersons only.



Appendix Table 3. Summary of county/town government's rating of the emphasis they feel their EMC/CAC should place on each function.

EMC/CAC FUNCTION	COUNTY GOVT.		TOWN GOVT.	
	MEAN <sup>a</sup>	95% C.I.	MEAN <sup>a</sup>	95% C.I.
<i>Providing county/town decision makers with data on environmental issues.....</i>	3.6	3.47-3.70	3.8	3.68-3.89
<i>Educating the public about environmental issues.....</i>	3.5	3.32-3.58	3.3	3.14-3.51
<i>Providing county/town decision makers with technical recommendations on environmental issues.....</i>	3.3	3.19-3.48	3.5	2.25-3.68
<i>Developing an environmental plan for your county/town.....</i>	3.3	3.09-3.42	3.4	3.26-3.62
<i>Facilitating citizen participation.....</i>	3.2	3.01-3.31	2.8	2.58-3.05
<i>Being an environmental "watchdog" for your county/town.....</i>	3.1	2.97-3.31	3.3	3.09-3.55
<i>Providing county/town decision makers with policy recommendations on environmental issues.....</i>	3.1	2.95-3.30	3.4	3.20-3.60
<i>Providing input on wildlife-related issues.....</i>	3.0	2.80-3.12	3.2	2.96-3.42
<i>Representing your citizens' opinions on environmental issues.....</i>	2.7	2.54-2.92	2.7	2.40-3.00

<sup>a</sup>County governments' rating was a 4 point scale with 1=SHOULD NOT DO; 2=LOW PRIORITY; 3=MEDIUM PRIORITY; and 4=HIGH PRIORITY.

Appendix Table 4. Summary of county/town government's rating of how well their EMC/CAC performed on a list of EMC/CAC functions.

EMC/CAC FUNCTION	COUNTY GOVT.		TOWN GOVT.	
	MEAN <sup>a</sup>	95% C.I.	MEAN <sup>a</sup>	95% C.I.
<i>Providing county/town decision makers with data on environmental issues.....</i>	2.8	2.71-2.99	2.7	2.38-2.94
<i>Providing county/town decision makers with policy recommendations on environmental issues.....</i>	2.7	2.56-2.91	2.3	2.01-2.58
<i>Providing county/town decision makers with technical recommendations on environmental issues.....</i>	2.7	2.49-2.82	2.4	2.15-2.75
<i>Being an environmental "watchdog" for your county/town.....</i>	2.6	2.43-2.78	2.4	2.06-2.69
<i>Representing your citizens' opinions on environmental issues.....</i>	2.5	2.36-2.77	2.1	1.76-2.53
<i>Educating the public about environmental issues.....</i>	2.5	2.29-2.63	2.0	1.59-2.31
<i>Developing an environmental plan for your county/town.....</i>	2.4	2.23-2.57	1.6	1.35-1.93
<i>Facilitating citizen participation.....</i>	2.3	2.16-2.52	2.0	1.70-2.35
<i>Providing input on wildlife-related issues.....</i>	2.2	2.05-2.43	2.1	1.77-2.37

<sup>a</sup>County government's rating was a 4 point scale with 1=POOR; 2=FAIR; 3=GOOD; and 4=EXCELLENT.

Appendix Table 5. Attitudes about local elected officials by EMCs/CACs.

QUESTION: *Our county's/local elected officials generally need information on environmental issues.*

RESPONSE	EMC MEMBERS <sup>a</sup>		CAC CHAIRPERSONS <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
STRONGLY DISAGREE.....	1	0.3	1	1.8
DISAGREE.....	1	0.3	0	0.0
UNDECIDED.....	10	3.3	4	7.3
AGREE.....	102	34.0	26	47.3
STRONGLY AGREE.....	186	62.0	24	43.6
TOTAL	300	100.0	55	100.0

QUESTION: *Our county's/local elected officials generally adequately consider the environmental aspects of issues.*

RESPONSE	EMC MEMBERS <sup>b</sup>		CAC CHAIRPERSONS <sup>b</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
STRONGLY DISAGREE.....	40	13.4	5	9.1
DISAGREE.....	112	37.6	14	25.5
UNDECIDED.....	62	20.8	7	12.7
AGREE.....	79	26.5	24	43.6
STRONGLY AGREE.....	5	1.7	5	9.1
TOTAL	298	100.0	55	100.0

<sup>a</sup> $\chi^2=8.75$ ;  $df=4$ ;  $p=.068$

<sup>b</sup> $\chi^2=17.82$ ;  $df=4$ ;  $p=.001$

Appendix Table 6. County/town government's description of the input by their EMC/CAC.

INPUT:	RESPONSE	COUNTY GOVT.		TOWN GOVT.	
		NUMBER	PERCENT	NUMBER	PERCENT
<i>is usually biased</i>					
	EXTREMELY.....	7	6.4	5	9.4
	SLIGHTLY.....	24	22.0	16	30.2
	NEUTRAL.....	41	37.6	16	30.2
	SLIGHTLY.....	24	22.0	11	20.8
	EXTREMELY.....	13	11.9	5	9.4
<i>is usually unbiased</i>					
<i>is too anti-development</i>					
	EXTREMELY.....	3	2.8	7	13.5
	SLIGHTLY.....	14	13.1	18	34.6
	NEUTRAL.....	81	75.7	27	51.9
	SLIGHTLY.....	9	8.4	0	0.0
	EXTREMELY.....	0	0.0	0	0.0
<i>is too pro-development</i>					
<i>focuses on important issues</i>					
	EXTREMELY.....	29	27.4	11	21.2
	SLIGHTLY.....	38	35.8	16	30.8
	NEUTRAL.....	27	25.5	16	30.8
	SLIGHTLY.....	11	10.4	7	13.5
	EXTREMELY.....	1	0.9	2	3.8
<i>focuses on unimportant issues</i>					
<i>is too little</i>					
	EXTREMELY.....	5	4.8	3	6.0
	SLIGHTLY.....	14	13.3	9	18.0
	NEUTRAL.....	83	79.0	34	68.0
	SLIGHTLY.....	1	1.0	3	6.0
	EXTREMELY.....	2	1.9	1	2.0
<i>is too much</i>					
<i>is believable</i>					
	EXTREMELY.....	28	26.4	15	28.3
	SLIGHTLY.....	37	34.9	20	37.7
	NEUTRAL.....	32	30.2	11	20.8
	SLIGHTLY.....	6	5.7	4	7.5
	EXTREMELY.....	3	2.8	3	5.7
<i>is <u>not</u> believable</i>					

Appendix Table 6. Continued.

INPUT:	RESPONSE	COUNTY GOVT.		TOWN GOVT.	
		NUMBER	PERCENT	NUMBER	PERCENT
<i>is hard to understand</i>					
	EXTREMELY.....	1	1.0	1	2.0
	SLIGHTLY.....	11	10.7	2	3.9
	NEUTRAL.....	35	34.0	12	23.5
	SLIGHTLY.....	36	35.0	25	49.0
	EXTREMELY.....	20	19.4	11	21.6
<i>is easy to understand</i>					
 <i>does not include economic ramifications of issues</i>					
	EXTREMELY.....	21	20.0	16	30.2
	SLIGHTLY.....	24	22.9	14	26.4
	NEUTRAL.....	30	28.6	16	30.2
	SLIGHTLY.....	25	23.8	5	9.4
	EXTREMELY.....	5	4.8	2	3.8
<i>includes economic ramifications of issues</i>					
 <i>does not include legal ramifications of issues</i>					
	EXTREMELY.....	14	13.5	18	33.3
	SLIGHTLY.....	19	18.3	12	22.2
	NEUTRAL.....	38	36.5	16	29.6
	SLIGHTLY.....	28	26.9	6	11.1
	EXTREMELY.....	5	4.8	2	3.7
<i>includes legal ramifications of issues</i>					
 <i>does not include political ramifications of issues</i>					
	EXTREMELY.....	24	23.1	20	38.5
	SLIGHTLY.....	19	18.3	14	26.9
	NEUTRAL.....	39	37.5	15	28.8
	SLIGHTLY.....	16	15.4	3	5.8
	EXTREMELY.....	6	5.8	0	0.0
<i>includes political ramifications of issues</i>					



Appendix Table 6. Continued.

INPUT:	RESPONSE	COUNTY GOVT.		TOWN GOVT.	
		NUMBER	PERCENT	NUMBER	PERCENT
<i>is not representative of the county's/town's constituents</i>					
	EXTREMELY.....	8	7.4	6	12.2
	SLIGHTLY.....	15	13.9	4	8.2
	NEUTRAL.....	43	39.8	31	63.3
	SLIGHTLY.....	30	27.8	5	10.2
	EXTREMELY.....	12	11.1	3	6.1
<i>is representative of the county's/town's constituents</i>					

Appendix Table 7. Use of input by EMCs/CACs by their respective local government.

QUESTION: <i>How often do you use input from your county's EMC/town's CAC to make decisions that have environmental implications?</i>					
RESPONSE	COUNTY GOVERNMENT <sup>a</sup>		TOWN GOVERNMENT <sup>a</sup>		
	NUMBER	PERCENT	NUMBER	PERCENT	
NEVER.....	6	4.7	3	4.8	
SELDOM.....	14	10.9	6	9.7	
SOMETIMES.....	56	43.8	7	11.3	
OFTEN.....	40	31.3	17	27.4	
VERY OFTEN.....	12	9.4	29	46.8	
TOTAL	128	100.1	62	100.0	

<sup>a</sup> $\chi^2=40.62$ ;  $df=4$ ;  $p<.001$

Appendix Table 8. Overall importance of EMCs/CACs to their respective local government.

QUESTION: <i>Overall, how valuable is your county's EMC/town's CAC to your county/town?</i>				
RESPONSE	COUNTY GOVERNMENT <sup>a</sup>		TOWN GOVERNMENT <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
NOT VALUABLE.....	4	3.2	5	8.9
SLIGHTLY VALUABLE.....	25	20.0	8	14.3
MODERATELY VALUABLE.....	60	48.0	18	32.1
VERY VALUABLE.....	36	28.8	25	44.6
TOTAL	125	100.0	56	100.0

<sup>a</sup> $\chi^2=8.38$ ;  $df=3$ ;  $p=.039$

Appendix Table 9. Overall importance of services provided by EMCs/CACs to their respective local government.

QUESTION: <i>Overall, how would you rate the services provided by your county's EMC/town's CAC compared to the actual money spent on your county's EMC/town's CAC?</i>				
RESPONSE	COUNTY GOVERNMENT <sup>a</sup>		TOWN GOVERNMENT <sup>a</sup>	
	NUMBER	PERCENT	NUMBER	PERCENT
SERVICES PROVIDED ARE MORE VALUABLE THAN ACTUAL COSTS.....	55	44.4	34	57.6
SERVICES PROVIDED ARE ABOUT EQUAL TO ACTUAL COSTS.....	38	30.6	1	1.7
SERVICES PROVIDED ARE LESS VALUABLE THAN ACTUAL COSTS.....	9	7.3	2	3.4
NO OPINION or DON'T KNOW.....	22	17.7	22	37.3
TOTAL	124	100.0	59	100.0

<sup>a</sup> $\chi^2=24.52$ ;  $df=3$ ;  $p<.001$

Appendix Table 10. Groups or people who county legislators/supervisors report would try to contact them concerning decisions about wildlife-related issues.

GROUPS OR PEOPLE WHO TRY TO CONTACT YOU	NUMBER	PERCENT <sup>a</sup>
1. Local sporting organizations.....	87	69.6
2. Friends and family.....	81	64.8
3. Other county legislators or supervisors.....	75	60.0
4. Local environmental organizations.....	74	59.2
5. Your Environmental Management Council (EMC).....	65	52.0
6. Local chapters of national organizations.....	59	47.2
7. County and regional planning groups.....	56	44.8
8. Local business and industrial groups.....	55	44.0
9. League of Women Voters.....	54	43.2
10. Your County Cooperative Extension agent.....	53	42.2
11. Local Conservation Advisory Councils (CAC).....	43	34.4
12. Your Fish & Wildlife Management Boards.....	39	31.2
13. Bureau of Wildlife staff.....	31	24.8
14. A wildlife specialist at a college or university.....	20	16.0
15. U.S. Fish & Wildlife Service.....	14	11.2
16. An economist at a college or university.....	11	8.8
17. State wildlife biologist.....	11	8.8
18. Other federal agencies.....	10	8.0

<sup>a</sup>Based on 125 county legislators/supervisors who reported having a functioning EMC.

Appendix Table 11. Groups or people whom county legislators/supervisors report they would try to contact concerning decisions about wildlife-related issues.

GROUPS OR PEOPLE WHOM YOU TRY TO CONTACT	NUMBER	PERCENT <sup>a</sup>
1. Other county legislators or supervisors.....	91	72.8
2. Your County Cooperative Extension agent.....	90	72.0
3. Bureau of Wildlife staff.....	83	66.4
4. Your Environmental Management Council (EMC).....	77	61.6
5. County and regional planning groups.....	76	60.8
6. Your Fish & Wildlife Management Boards.....	54	43.2
7. U.S. Fish & Wildlife Service.....	54	43.2
8. A wildlife specialist at a college or university.....	52	41.6
9. Local environmental organizations.....	51	40.8
10. Local Conservation Advisory Councils (CAC).....	50	40.0
11. Friends and family.....	50	40.0
12. Local sporting organizations.....	48	38.7
13. Other federal agencies.....	47	37.6
14. State wildlife biologist.....	37	29.6
15. Local chapters of national organizations.....	33	26.4
16. Local business and industrial groups.....	32	25.6
17. An economist at a college or university.....	27	21.6
18. League of Women Voters.....	17	13.6

<sup>a</sup>Based on 125 county legislators/supervisors who reported having a functioning EMC.

Appendix Table 12. Groups or people who town planning board chairpersons report would try to contact them to provide information concerning decisions about wildlife-related issues.

GROUPS OR PEOPLE WHO TRY TO CONTACT YOU	NUMBER	PERCENT <sup>a</sup>
1. Local environmental organizations.....	41	65.1
2. Local Conservation Advisory Councils (CAC) <sup>b</sup> .....	33	52.4
3. Friends and family.....	29	46.0
4. Local sporting organizations.....	26	41.3
5. Local chapters of national organizations.....	25	39.7
6. Local business and industrial groups.....	24	38.1
7. County and regional planning groups.....	22	34.9
8. County legislators or supervisors.....	19	30.2
9. Bureau of Wildlife staff.....	14	22.2
10. Your Environmental Management Council (EMC) <sup>c</sup> .....	14	22.2
11. League of Women Voters.....	14	22.2
12. Your County Cooperative Extension agent.....	11	17.5
13. A wildlife specialist at a college or university.....	7	11.1
14. An economist at a college or university.....	7	11.1
15. Other federal agencies.....	3	4.8
16. State wildlife biologist.....	3	4.8
17. Fish & Wildlife Management Boards.....	2	3.2

<sup>a</sup>Based on 63 town planning board chairpersons.

<sup>b</sup>All TPB chairpersons in this sample had a CAC (or equivalent group).

<sup>c</sup>Not all counties have EMCs.



Appendix Table 13. Groups or people whom town planning board chairpersons report they would try to contact for information concerning decisions about wildlife-related issues.

GROUPS OR PEOPLE WHOM YOU TRY TO CONTACT	NUMBER	PERCENT <sup>a</sup>
1. Bureau of Wildlife staff.....	52	82.5
2. County and regional planning groups.....	46	73.0
3. Local Conservation Advisory Councils (CAC) <sup>b</sup> .....	39	61.9
4. Your County Cooperative Extension agent.....	36	57.1
5. U.S. Fish & Wildlife Service.....	33	52.4
6. A wildlife specialist at a college or university.....	30	47.6
7. State wildlife biologist.....	27	43.9
8. Local environmental organizations.....	26	41.3
9. Your Environmental Management Council (EMC) <sup>c</sup> .....	24	38.1
10. Other federal agencies.....	24	38.1
11. County legislators or supervisors.....	18	28.6
12. Local sporting organizations.....	16	25.4
13. Fish & Wildlife Management Boards.....	14	22.2
14. Friends and family.....	14	22.2
15. Local chapters of national organizations.....	14	22.2
16. An economist at a college or university.....	12	19.0
17. Local business and industrial groups.....	6	9.5
18. League of Women Voters.....	3	4.8

<sup>a</sup>Based on 63 town planning board chairpersons.

<sup>b</sup>All TPB chairpersons in this sample had a CAC (or equivalent group).

<sup>c</sup>Not all counties have EMCs.

Appendix Table 14. Degree of credibility that Environmental Management Council members have for sources concerning information about wildlife-related issues.

POSSIBLE INFORMATION SOURCES ABOUT WILDLIFE-RELATED ISSUES	DEGREE OF CREDIBILITY <sup>a</sup>	95% C.I.
1. State wildlife biologist.....	2.43 +	2.33-2.52
2. A wildlife specialist at a college or university..	2.42 +	2.32-2.51
3. Bureau of Wildlife staff.....	2.41 +	2.32-2.50
4. U.S. Fish & Wildlife Service.....	2.24	2.13-2.34
5. Your County Cooperative Extension agent.....	2.19 -	2.08-2.29
6. Other Environmental Management Councils (EMC).....	2.03	1.92-2.14
7. Your Fish & Wildlife Management Boards.....	1.98	1.86-2.10
8. Local Conservation Advisory Councils (CAC).....	1.95	1.83-2.07
9. Other federal agencies.....	1.90	1.79-2.01
10. Local chapters of national envir. organizations...	1.84	1.72-1.96
11. Local environmental organizations.....	1.80	1.70-1.91
12. County and regional planning groups.....	1.79 -	1.67-1.91
13. Friends and family.....	1.55	1.44-1.66
14. Local sporting organizations.....	1.41 -	1.29-1.52
15. League of Women Voters.....	1.36	1.21-1.51
16. County legislators or supervisors.....	1.27 -	1.16-1.38
17. An economist at a college or university.....	1.24	1.09-1.38
18. Local business and industrial groups.....	1.03 -	0.91-1.15

<sup>a</sup>Degree of credibility was measured by a 4-point scale with 0=NO CREDIBILITY and 3=GREAT CREDIBILITY.

+ = Source rated higher by EMC than CL (Compare with Table 1)

- = Source rated lower by EMC than CL (Compare with Table 1)

Appendix Table 15. Degree of credibility that Conservation Advisory Council chairpersons have for sources concerning information about wildlife-related issues.

POSSIBLE INFORMATION SOURCES ABOUT WILDLIFE-RELATED ISSUES	DEGREE OF CREDIBILITY <sup>a</sup>	95% C.I.
1. State wildlife biologist.....	2.49	2.28-2.70
3. Bureau of Wildlife staff.....	2.43	2.26-2.61
2. A wildlife specialist at a college or university..	2.41	2.20-2.62
6. Your Environmental Management Council (EMC).....	2.37	2.18-2.56
8. Other Conservation Advisory Council members (CAC).	2.32	2.11-2.53
4. U.S. Fish & Wildlife Service.....	2.32	2.07-2.57
5. Your County Cooperative Extension agent.....	2.27	2.09-2.46
9. Other federal agencies.....	2.27	2.04-2.50
7. Your Fish & Wildlife Management Boards.....	2.06	1.77-2.34
10. Local chapters of national envir. organizations...	1.91	1.72-2.09
11. Local environmental organizations.....	1.90	1.71-2.09
12. County and regional planning groups.....	1.87	1.67-2.07
13. Friends and family.....	1.55	1.34-1.75
16. County legislators or supervisors.....	1.38	1.18-1.59
14. Local sporting organizations.....	1.30	1.07-1.54
15. League of Women Voters.....	1.17	0.86-1.46
17. An economist at a college or university.....	1.29	0.98-1.59
18. Local business and industrial groups.....	0.90	0.67-1.13

<sup>a</sup>Degree of credibility was measured by a 4-point scale with 0=NO CREDIBILITY and 3=GREAT CREDIBILITY.

NOTE: No significant differences between CACs and TPB chairpersons (Compare with Table 2), however, small sample sizes make it difficult to find significant differences.



